REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1, 4-13, 16-51 and 53 are presently active, Claims 2-3, 14-15 and 52 are canceled without prejudice, Claims 1, 16, 20-22, 29, 39, 43 and 51 are amended, and Claim 53 is added by the present amendment. No new matter is added.

In the outstanding Office Action, Claims 1-16, 20-21, 42, 44-48 and 51-52 were rejected under 35 U.S.C. § 102(b) as anticipated by Tomisaki et al. (EP 1067606). Claims 17-19 were rejected under 35 U.S.C. § 103(a) as unpatentable over Tomisaki et al. Claims 24-28 were rejected under 35 U.S.C. § 103(a) as unpatentable over Tomisaki et al. in view of Kwak et al. (U.S. Pub 2001/0024254). Claims 29-41 and 49-50 were objected to as dependent upon a rejected base claim, but were otherwise indicated as including allowable subject matter if rewritten in independent form.

Regarding the rejection under 35 U.S.C. § 102(b) and § 103 (a), Applicant respectfully submits that the rejection is overcome because, in Applicant's view, amended independent Claims 1, 16, 21, 22 and 51 patentably distinguish over Tomisaki et al. and Kwak et al. as discussed below.

Firstly, Applicant acknowledges with appreciation the indication of allowable subject matter in Claims 29-41 and 49-50. Allowable Claim 29 is therefore amended to be in independent form with the allowable subject matter recited in original Claim 29. Accordingly, it is respectfully submitted that Claim 29 and Claims 30-41 and 49-50 dependent therefrom patentably define over the applied prior art.

Claims 1 and 51 recite, *inter alia*, "wherein the offset component is a charge output from the integration amplifier when the detector does not detect a radiation."

The outstanding Office Action states that Tomisaki et al. at paragraph (0016) discloses that the offset component is a charge output from the integration amplifier when not radiated to the detector (Office Action at page 2, lines 18-19). Applicant respectfully disagrees.

Tomisaki et al. describes that each dummy pixel 9 generates only an offset upon switching of the TFT without generating any signal charge (Tomisaki et al. at paragraph (0016)). However, Tomisaki et al. further describes that since the adjustment TFTs 61 and the read TFTs 33 of the respective pixels operate 180 degree out of phase with each other, their offset voltages cancel each other (Tomisaki et al. at paragraph (0038)). That is, the offset canceled by the dummy pixel 9 is ***not*** a charge output ***from the amplifier 23, but from the detection member.***

Thus, Tomisaki et al. fails to teach or suggest "wherein the offset component is a charge output from the integration amplifier when the detector does not detect a radiation," as recited in Claims 1 and 51.

Claim 16 recites, *inter alia*, "the first adjustment member includes a first adjustment line, and when the detection member generates the first charge through a signal line, the parasitic capacitance is generated at a crossing point between the signal line and the first adjustment line."

The outstanding Office Action states that Tomisaki et al. in Fig. 28A discloses a predetermined parasitic capacitance 91, 3 of the TFT 33 where the parasitic capacitance is generated at a crossing point between the signal line and the first adjustment line (Office Action at page 3, lines 16-18). Applicant respectfully disagrees.

In Tomisaki et al., the reference number 3 refers a pixel which detects a radiation, and the reference number 91 refers a gate-source parasitic capacitance Cgs of the TFT 33. The detection member generates a charge through a signal line, which is connected to the pixel 33

and the input terminal of the amplifier 23a. Further, Tomisaki et al. shows in Fig. 28A that a capacitor Cin is connected to the signal line (the input of the amplifier 23a). However, since the capacitor Cin is ***connected*** to the signal line, a ***parasitic*** capacitance is not generated ***at a crossing point*** between the signal line and the capacitor Cin. Further, the capacitor Cin is used for preventing saturation due to charge injection, not for adjusting an offset component included in a charge to be amplified by the amplifier 23a (Tomisaki et al. at paragraph (0103) through (0105)).

Thus, Tomisaki et al. fails to teach or suggest "the first adjustment member includes a first adjustment line, and when the detection member generates the first charge through a signal line, the parasitic capacitance is generated at a crossing point between the signal line and the first adjustment line," as recited in Claim 16.

Claim 21 recites, *inter alia*, "wherein the offset component is a charge output from the integration amplifier when the detector does not detect a radiation" and "the integration amplifier comprises a plurality of amplifying elements, the first adjustment member adjusts the offset component for each of the plurality of amplifying elements independently."

The outstanding Office Action states that Tomisaki et al. discloses at Fig. 4 and paragraph (0012) a plurality of integration amplifiers 23a, wherein the first adjustment member adjusts the offset component for each of the plurality of amplifying elements independently (Office Action at page 4, lines 1-3). Applicant respectfully disagrees.

Tomisaki et al. describes an adjustment block 6 for adjusting signals output from the pixels 3 to reduce an offset in an integrating circuit, and an adjustment block control line 7 (Tomisaki et al. at paragraph (0012)). However, the adjustment block control line 7 is connected to the gate of all the adjustment TFTs 61 (Tomisaki et al. in Fig. 4). That is, all the adjustment TFTs 61 are controlled in the same manner, and therefore, all the amplifiers 23a

are controlled in the same manner. Therefore, Tomisaki et al. does not disclose adjusting the offset for each of the plurality of amplifiers 23a individually.

Thus, Tomisaki et al. fails to teach or suggest "the integration amplifier comprises a plurality of amplifying elements, the first adjustment member adjusts the offset component for each of the plurality of amplifying elements independently."

Further, as argued above, Tomisaki et al. fails to teach or suggest "wherein the offset component is a charge output from the integration amplifier when the detector does not detect a radiation."

Claim 22 recites, *inter alia*, "wherein the detection member is configured to generate the first charge through a plurality of signal lines, and the first adjustment member is configured to adjust the offset component for each predetermined number of the plurality of signal lines independently."

As set forth above, in Tomisaki et al., all the adjustment TFTs 61 are controlled in the same manner. Therefore, all the signal lines 4 are controlled in the same manner. Thus, Tomisaki et al. does not disclose adjusting the offset for each predetermined number of the plurality of signal lines independently.

Thus, Tomisaki et al. fails to teach or suggest "wherein the detection member is configured to generate the first charge through a plurality of signal lines, and the first adjustment member is configured to adjust the offset component for each predetermined number of the plurality of signal lines independently," as recited in Claim 22.

In addition, Kwak et al. also fails to teach or suggest the features of independent Claims 1, 16, 21, 22 and 51.

Accordingly, independent Claims 1, 16, 21, 22, 29 and 51 patentably distinguish over Tomisaki et al. and Kwak et al. Therefore, independent Claims 1, 16, 21, 22, 29 and 51 and

the pending Claims 4-13, 17-20, 23-28, 30-50 and 53 dependent from Claims 1, 16, 22 and 29 are believed to be allowable.

Consequently, in view of the present amendment and in light of the above discussions, it is believed that the outstanding rejection is overcome, and the application as amended herewith is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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